

Protection and Restoration of Marine Life in the Inland Marine Waters of Washington State

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Abstract

The report from which this abstract is derived was commissioned by Washington's Transboundary Protect Marine Life Work Group as technical support for their development of an implementation plan for protecting and restoring stressed marine species in Washington's inland waters. The report gathers information from over 200 documents and interviews with over 50 experts.

This report (1) identifies thirteen species or species groups whose populations have experienced significant declines in population, or are suspected of being significantly stressed in Puget Sound; (2) evaluates anthropogenic and natural factors contributing to declines or stress; (3) evaluates current management strategies; and (4) recommends ways to improve protection and restoration of these species. The group considered in the report comprises three invertebrate species or groups, six fish species or groups, three seabird species, and one porpoise. Stressors discussed include harvest, habitat loss, pollution, disturbance, and climate-related variability. Potential and realized impacts of stressors are considered for all species' life stages. Unintended effects on the ecosystem from existing management activities (e.g., harvest and fishery enhancements) are discussed as well. Examples are drawn using known food-web relationships among manipulated species.

Recommendations for more effective restoration and protection are detailed and extensive, and include establishing marine refugia, continuing and increasing harvest restrictions, better protecting habitat, establishing a clearer link between habitat and natural productivity, identifying better the effects on organisms from exposure to pollutants, protecting sensitive species from disturbance, understanding better the natural climate-related cyclical nature of organism abundance, and recognizing the connectedness of all species in management schemes.